AWS re:Invent

ENT215

Five steps AMS leverages to accelerate cloud adoption

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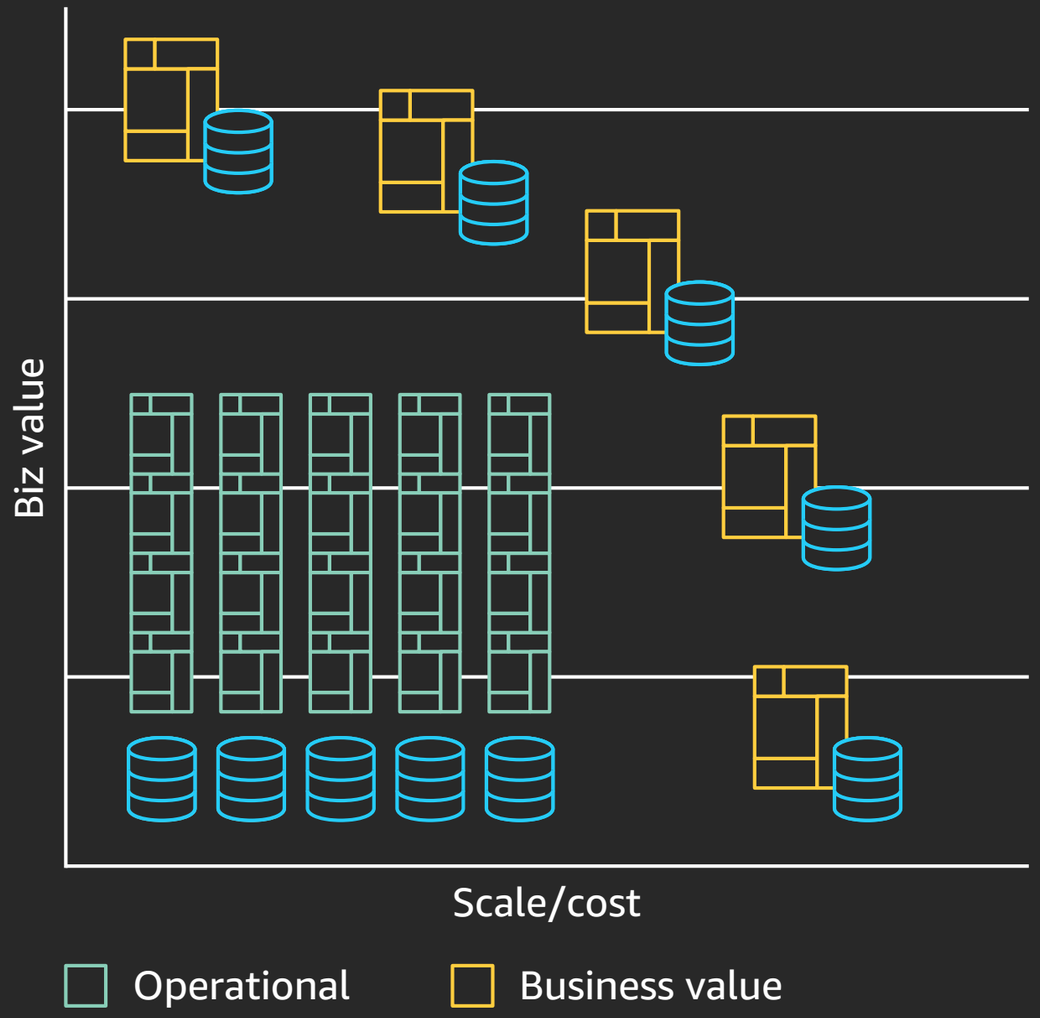
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Agenda

- Current state overview
- Transformation flywheel
- Customer journey: Sallie Mae
  - Who are we?
  - Business objective
- Flywheel in action
- A year in review: Sallie Mae
- Closing

Current state overview/challenges to address



Agility

IT struggling to keep pace with escalating business demands

Cost

Business requires expense reductions

Resiliency

Resilient and secure

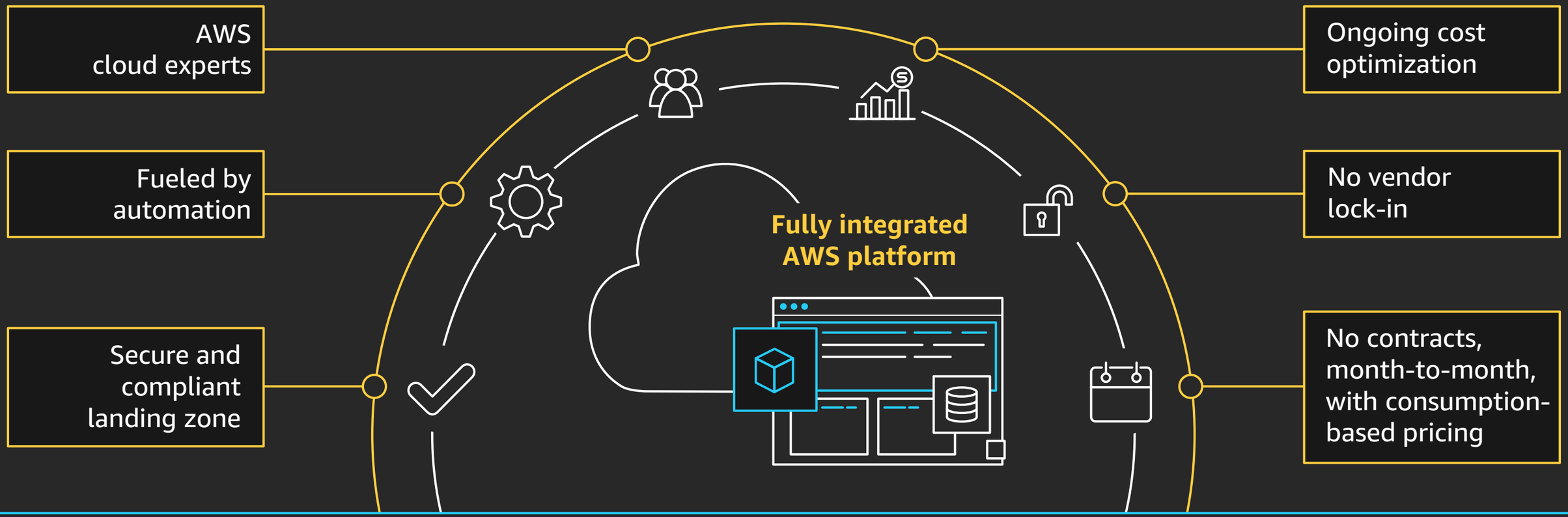
Innovation

Business expects IT to proactively create business value

AWS Managed Service (AMS) as a flywheel

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AWS Managed Services (AMS)



Built on standard AWS tools and customer-owned assets

AMS: Automated infrastructure operations domains



Provisioning/
Onboarding



Security and
compliance



Monitoring/
Alerting



Insights and cost
optimization



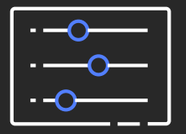
Patch and
backup



Change
management



Incident
management



Service
integration

Understanding the subtlety

“Fit to purpose”

Utility

AWS allows organizations to

Add performance

Remove constraints

Integrate tools



“Fit for use”

Warranty

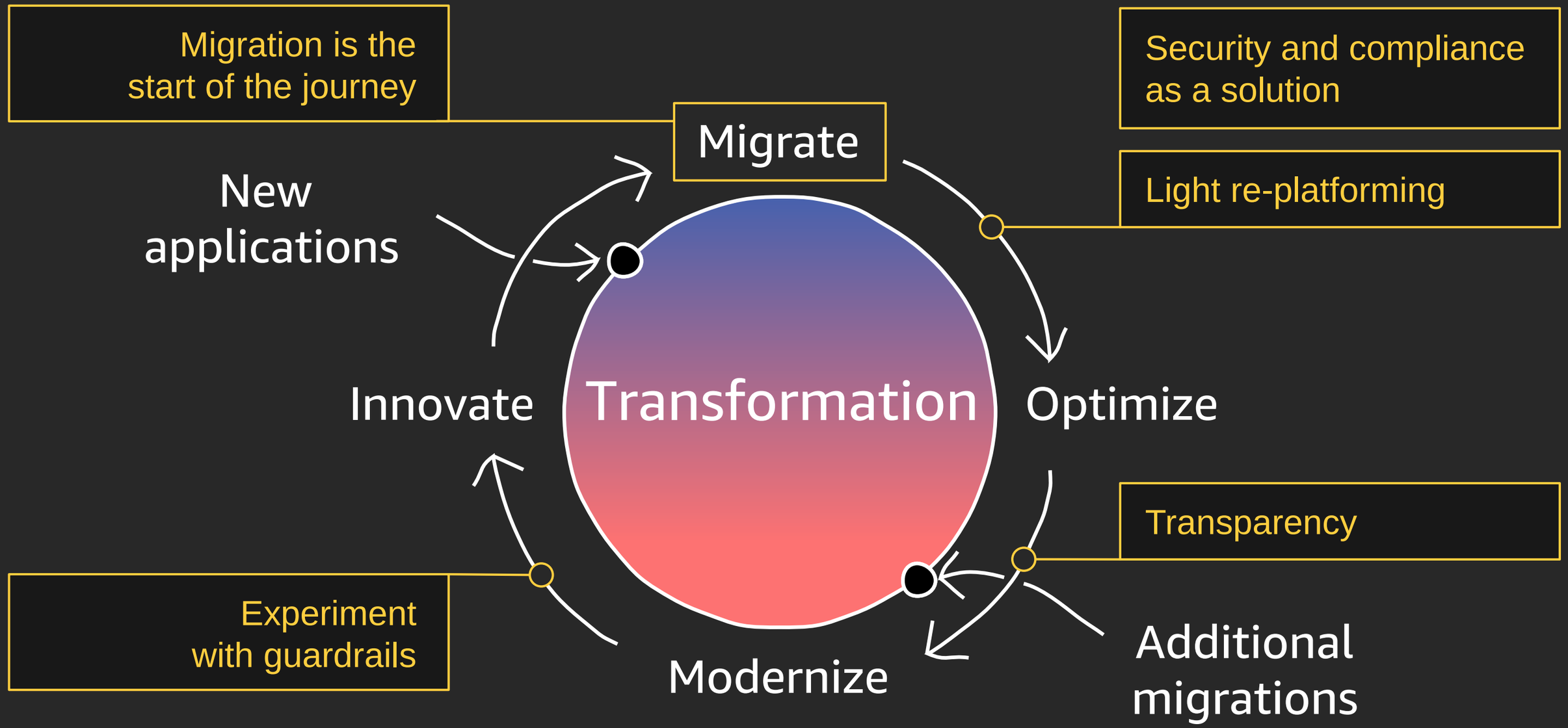
AMS added people, process, and tooling to provide SLAs around

Capacity

Availability

Security

Continuity


Migration is the start of the journey
Migrate
Security and compliance as a solution
Light re-platforming
New applications
Innovate
Transformation
Optimize
Transparency
Experiment with guardrails
Modernize
Additional migrations

Sallie Mae Bank

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Who we are?

We are a bank with a purpose: to empower families to responsibly pay for college.

Our core product: private student loans

91% of customers complete their course of study

91% of customers employed

98% successfully managing Sallie Mae loan payments

Complementary consumer product offerings



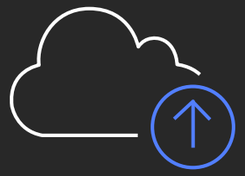
Business imperatives



Digital transformation



Customer experience



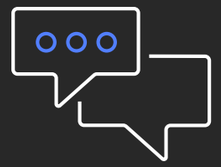
Adopting a “mobile first” mindset



Drive significantly more (and better) personalization

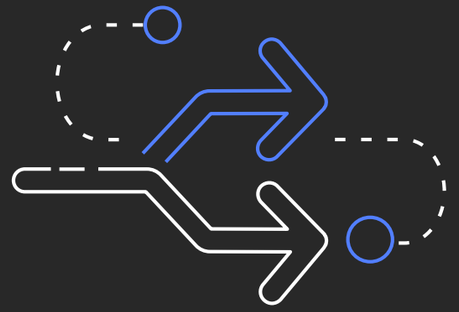


Modernize our marketing technology (MarTech) environment



Implement a robust CRM solution

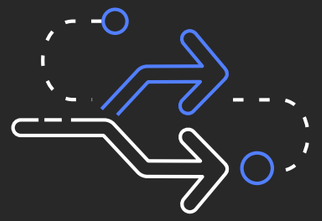
Desired business outcomes



Business agility

Responsiveness to business demands

Desired business outcomes



Business agility

Responsiveness to business demands



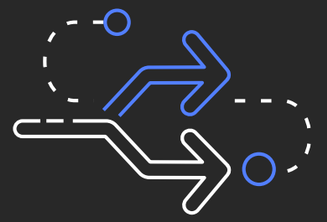
Resilient operations and security

Improved server-patching windows

Significantly improved disaster recovery capabilities

Improved infrastructure resiliency

Desired business outcomes



Business agility

Responsiveness to business demands



Resilient operations and security

Improved server-patching windows

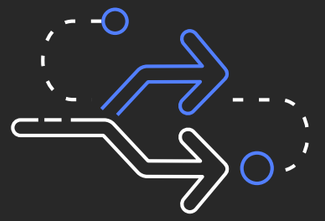
Significantly improved disaster recovery capabilities

Improved infrastructure resiliency



Cost reduction

Desired business outcomes



Business agility

Responsiveness to business demands



Resilient operations and security

Improved server-patching windows

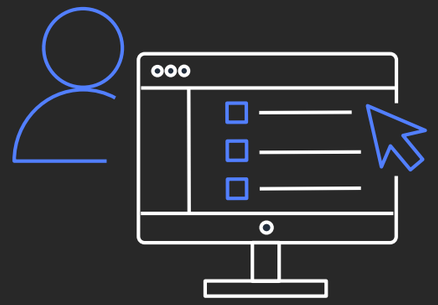
Significantly improved disaster recovery capabilities

Improved infrastructure resiliency



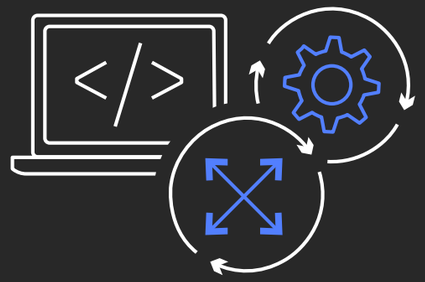
Cost reduction

Why AMS?



Allow Sallie Mae IT staff to focus on differentiated business impact

- Thought leadership and strategy



Let AMS drive the undifferentiated infrastructure operations

- Leverage AWS scale automation
- Provide the guardrails

Sallie Mae flywheel in action

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Sallie Mae Data Center Exit at a glance

1,000 workloads	Various partners	New tooling
~100 applications	Operating model change	7-month effort

Challenge accepted

Security
Operations
Light re-platforming …
Oh my!

Are we ready?



Migrate

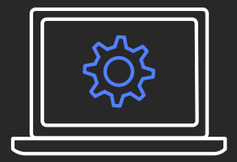
Fueling the people part of the flywheel!



Guiding principles for the program



Design with operations, security, and compliance in mind—work backward



Plan
Do
Automate



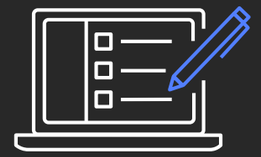
Transparency at the forefront



ITSM integration and education—work backward from user experience



Build memory muscle through Operational Game Days



Transform ways of working

The results at a glance

Over 1,000 workloads cutover to production in AWS

3 disaster recovery simulations—over 50% improvement

Achieved cost-saving objectives with the first year

Reduced downtime due to maintenance by 30%

30% reduction in spend

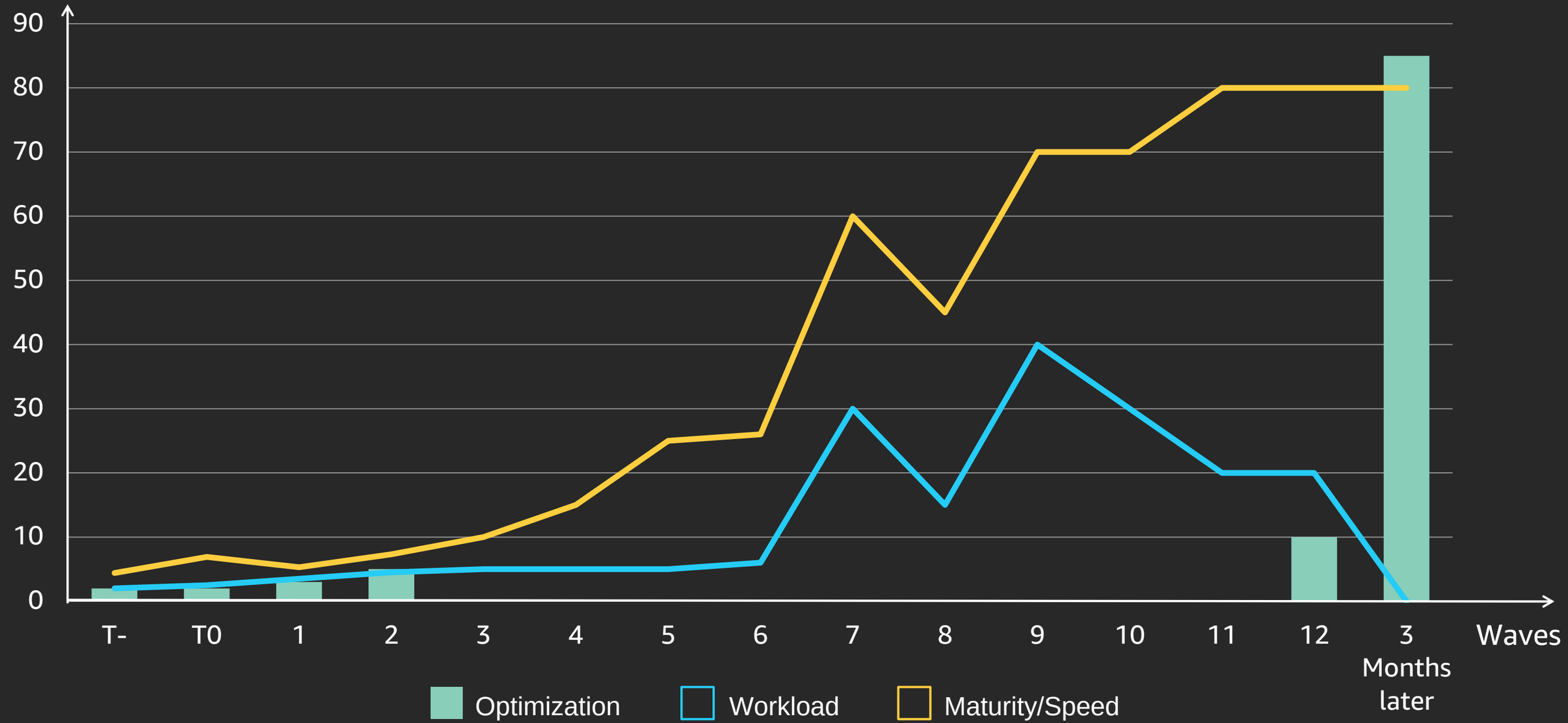
Patching compliance and window improved by 30%

Improved application performance

Scalability for seasonality

… all in a year’s work

Migration/speed & maturity/optimization



Crawl, walk, run

Crawl

First POC
migration weekend

1 workload
took 3 days

Walk

You have to walk
before you can run

Third wave, we
did 20 workloads

Run

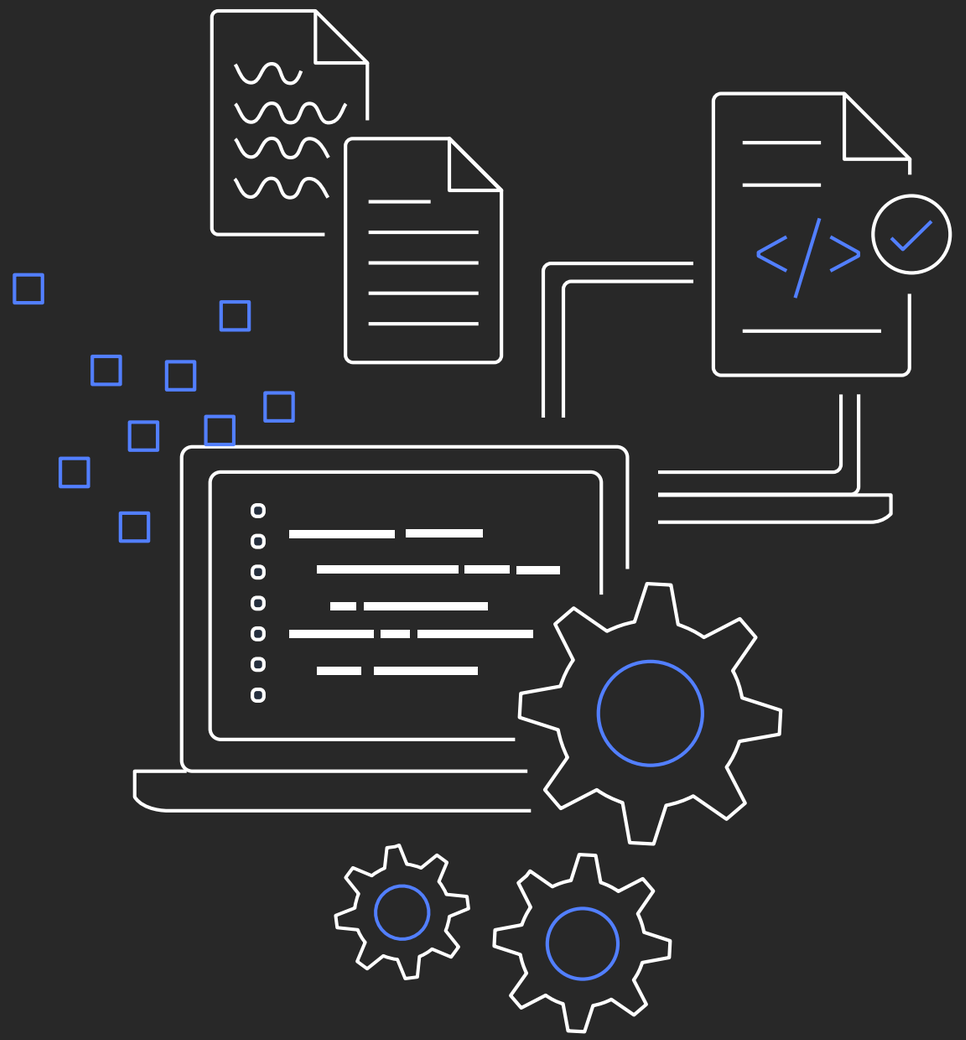
But when you run,
you are conditioned

Last wave we did 150
workloads in a weekend

Be agile, iterate, partner with AMS

Pro tips

- Decision velocity is important—you can revisit them
- Understand what items can be staged in advance
- Start optimizing from the first workload
- Tag everything possible
- Automate



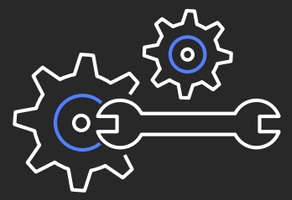
If I had a magic wand …

1. Proof of concept—crawl, walk, run
2. Dedicate resources to work through the finer details of OS, apps, and database platforms
3. Parallel path workload optimization efforts
4. Prep partners and vendors with white board sessions, not just notifying them about upcoming changes
5. More “build in parallel” where possible; reduce workload during cutover weekends and the outage windows

Keeping the flywheel going … what's next?

1. Cloud-native development—our first application modernization projects will yield a reduction in server footprint of ~150 EC2 instances
2. Beginning to review AWS database options for both Oracle and Microsoft SQL server
3. Focus is on business enablement, customer satisfaction

Future is looking bright



Operational efficiencies



Modernizing applications—leveraging serverless



Exploring database options with Amazon Aurora

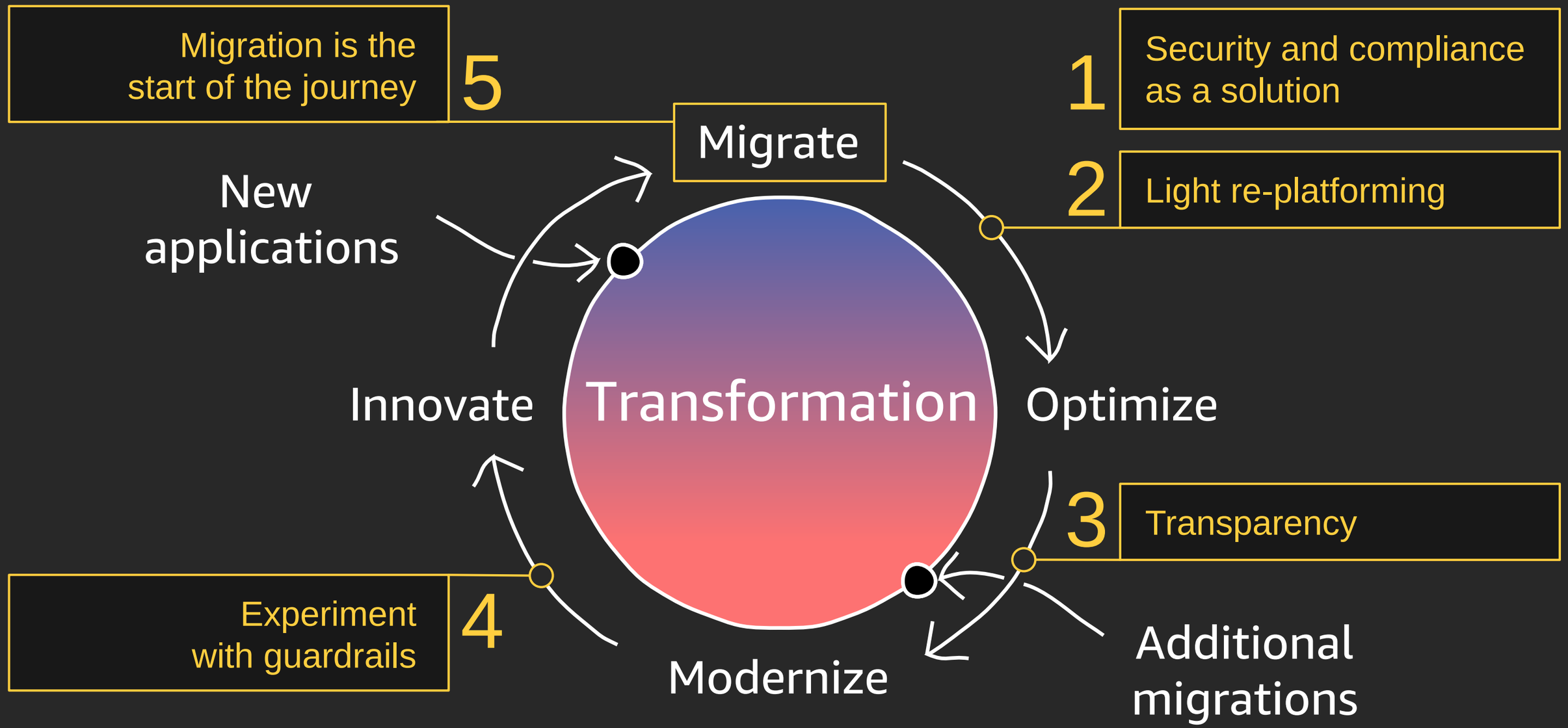


Focus is on business enablement, customer satisfaction

Recap

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Five steps AMS uses to enable acceleration



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AWS Training and Certification for the enterprise

Resources to help your organization build cloud skills and achieve business objectives

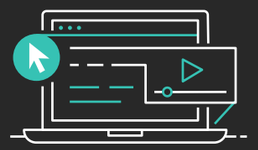

Cost savings (TCO)


Staff productivity


Operational resilience


Business agility

Comprehensive skill development plan for broad cloud fluency


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